

REMARKS

Applicant asks that all claims be allowed in view of the above amendments and the following remarks. This amendment is being filed concurrently with a Request for Continued Examination.

Claims 1-5, 8, 18, 21, 22, and 24-26 are currently pending. Claims 1-4 and 18 have been amended. Claims 27 and 28 have been added. Support for new claims 27 and 28 can be found in the originally-filed specification at least at page 6, lines 25-27. No new matter has been added.

Rejection of claims 1, 3, 4, and 8 in view of Kumbera

Claims 1, 3, 4, and 8 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,168,414 (Kumbera). Applicant requests withdrawal of this rejection because Kumbera does not describe or suggest a capillary tube provided through a seal that is provided around a vacuum interrupter and a current exchange housing, where the capillary tube is disposed such that a second end of the capillary tube accesses an exterior of the seal, as recited in claim 1.

The Examiner points to the tube 47 and the bushing 51 and/or the wall 23 in Figure 3 of Kumbera as showing a tube provided within a seal. However, the tube 47 in Figure 3 of Kumbera does not show a capillary tube provided through a seal. Rather, the tube 47 is large enough to act as a guide and a passageway for the operating rod or shaft 40, which is a large element (see Kumbera at col. 7, lines 11-19 and Fig. 3) such that the tube 47 could not constitute a capillary tube. In particular, the operating shaft 40 is coupled to a movable contact 28 and also coupled into an operating unit 4 such that the operating rod 40 controls the motion of the movable contact 28. See Kumbera at col. 6, lines 29-36 and col. 8, lines 11-15.

For at least the above reasons, claim 1 is allowable over Kumbera. Claims 3, 4, and 8 depend from claim 1 and are allowable for at least the reasons that claim 1 is allowable and for containing allowable subject matter in their own right. For example, claim 3 recites that "the capillary tube is integrally formed into the seal during formation of the seal." In Kumbera, the

tube 47 is not integrally formed into the seal formed by the wall 23, the housing 54, and the O-ring seal 59. Rather, the tube 47 is formed entirely within the interior of the interrupter 3 and the unit 4.

As another example, claim 4 recites that the "second end of the capillary tube is open to an encapsulation material provided around the vacuum interrupter, the current exchange housing, and the seal." Kumbera does not disclose a tube that is open to an encapsulation material provided around the vacuum enclosure 19. In Kumbera, the only encapsulation material that is provided around the vacuum enclosure 19 is the housing 23, and the guide tube 47 does not open to the housing 23. See Kumbera at Fig. 3. Rather, the guide tube 47 opens at one end into the conductive housing 42 and at another end to an interior of the unit 4. See Kumbera at Figs. 3 and 4.

Rejection of claims 1-4 and 8 in view of Pflanz

Claims 1-4 and 8 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,849,617 (Pflanz). With respect to claim 1, applicant requests withdrawal of this rejection because Pflanz does not describe or suggest a current exchange housing adjacent to a vacuum interrupter, as recited in claim 1.

The Examiner points to elements 46 and 47 of Pflanz as somehow showing a current exchange housing adjacent to the vacuum interrupter 10.¹ However, the elements 46 and 47 are integral components of the vacuum interrupter 10. See Pflanz at col. 2, line 66 to col. 3, line 1. The elements 46 and 47 cannot be both components of the vacuum interrupter 10 and parts of a current exchange housing that is adjacent to the vacuum interrupter 10.

Claims 2-4 and 8 depend from claim 1 and are allowable for at least the reasons that claim 1 is allowable and for containing allowable subject matter in their own right. Claim 4 recites that the "second end of the tube is open to an encapsulation material provided around the vacuum interrupter, the current exchange housing, and the seal." Pflanz does not disclose the use of such an encapsulation material and, accordingly, no end of Pflanz's tube 24 opens to such an

¹ The Advisory Action does not address the rejections in view of Pflanz, though it indicates that the claims that were rejected over Pflanz remain rejected.

encapsulation material. The rejection of claim 4 should be withdrawn for at least this additional reason.

Rejection of claims 5, 18, 21, 22, and 24-26 in view of Pflanz

Claims 5, 18, 21, 22, and 24-26 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Pflanz. Applicant requests withdrawal of this rejection for the following reasons.

Claim 5 depends from claim 1 and is allowable for at least the reasons that claim 1 is allowable. As discussed above, Pflanz does not properly disclose or suggest all of the features recited in claim 1. Specifically, Pflanz does not disclose a current exchange housing adjacent to the vacuum interrupter or a seal provided around the vacuum interrupter and a current exchange housing. Further, there is nothing in Pflanz that would have motivated one of ordinary skill in the art to modify Pflanz to produce the subject matter of claim 1.

Pflanz also does not describe or suggest all of the features of claim 18. In particular, as discussed above with respect to claim 1, Pflanz does not disclose a housing adjacent to a vacuum interrupter and a seal around the vacuum interrupter and the housing. Rather, Pflanz discloses only the vacuum interrupter 10. See Pflanz at col. 2, lines 37-40 and Fig. 1.

Furthermore, there would have been no motivation to modify Pflanz to include a hollow housing adjacent to the vacuum interrupter 10 and a seal around the vacuum interrupter and the hollow housing to define an air-filled cavity within the hollow housing. Pflanz discloses an evacuated space 23 within the vacuum interrupter 10, which is evacuated by tube 24 and sealed by end caps 17 and 18. See Pflanz at col. 2, lines 40-41 and 54-59. However, the space 23 is not a hollow housing adjacent to the vacuum interrupter 10. Rather, the space 23 is within the vacuum interrupter 10. Additionally, while the tube 24 is formed into wall member 11, the tube 24 is not formed into a seal that is provided around the interrupter 10 and an adjacent hollow housing. For at least these reasons, claim 18 is allowable over Pflanz.

Claims 21, 22, and 24-26 depend from claim 18 and are allowable for at least the reasons that claim 18 is allowable and for containing allowable subject matter in their own right. For

example, claim 21 recites a tube with a diameter large enough to transfer air from the air-filled cavity to the space exterior the seal and small enough to prevent transmission of the liquefied encapsulation material from the space into the air-filled cavity. Pflanz never suggests that the tube 24 has a diameter small enough to prevent transmission of a liquefied encapsulation material. Rather, Pflanz explains that the tube 24 is actively sealed after the space 23 is "evacuated to the extent desired." See Pflanz at col. 2, lines 60-66.

As another example, claim 24 recites that "the second end of the tube is open to an encapsulation material provided around the vacuum interrupter, the hollow housing, and the seal." However, Pflanz does not disclose a tube that is open to an encapsulation material provided around the interrupter 10.

Applicant submits that all claims are in condition for allowance.

Enclosed is a \$120.00 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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/Diana DiBerardino/

Diana DiBerardino

Reg. No. 45,653

Fish & Richardson P.C.
1425 K Street, N.W.
11th Floor
Washington, DC 20005-3500
Telephone: (202) 783-5070
Facsimile: (202) 783-2331